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## BACKGROUND

The U.S. Department of the Interior (Interior), through the Bureau of Reclamation (Reclamation) and the U.S. Fish and Wildlife Service (USFWS), proposes to purchase temporary water supplies from Stevinson Water District (District) during the water supply years 2004 to 2006 for the San Joaquin Valley wildlife refuges and wildlife management areas (hereafter referred to as “refuges”). This water will be used to enhance and maintain critical wetland habitats at the designated refuges. Acquisition of this water is authorized under Section 3406 (b)(3) and Section (d)(2) of the Central Valley Project Improvement Act (CVPIA).<sup>1</sup>

Section 3406(d)(1) of the CVPIA requires the Secretary of the Interior, immediately upon enactment, to provide firm delivery of Level 2 and 4 Full Habitat Development water supplies to the various wetland habitat areas identified in Reclamation’s Report on Refuge Water Supply Investigations (Reclamation 1989) and the San Joaquin Basin Action Plan/Kesterson Mitigation Plan (Interior et al. 1989). In order to accomplish the stated refuge management objectives, these reports describe water needs and delivery requirements for each wetland habitat area. In the Reclamation report (1989), the average annual historical supplies were termed “Level 2” and the supplies needed for optimal habitat management were termed “Level 4.” The difference between Level 2 and Level 4 is called “incremental Level 4.”

Section 3406(d)(2) of the CVPIA further directs the Secretary to provide additional water supplies to meet incremental Level 4 requirements by 2002 through the acquisition of water from willing sellers. Table 1 outlines the Level 2 and Level 4 requirements for the wildlife refuges of the San Joaquin Valley.

<b>Table 1</b> <b>Summary of Level 2 and Level 4 Requirements</b> <b>for San Joaquin Valley Wildlife Refuges (measured in acre-feet)</b>			
<b>Wildlife Refuges</b>	<b>L2</b>	<b>100% Incremental L4</b>	<b>Total L4</b>
San Luis NWR	19,000	0	19,000
West Bear Creek NWR	7,207	3,603	10,810
East Bear Creek NWR	8,863	4,432	13,295
Kesterson NWR	10,000	0	10,000
Freitas NWR	5,290	0	5,290
Salt Slough Wildlife Area	6,680	3,340	10,020
China Island Wildlife Area	6,967	3,483	10,450
Mendota Wildlife Area	27,594	2,056	29,650
Volta Wildlife Area	13,000	3,000	16,000

<sup>1</sup> The CVPIA was signed into law on October 30, 1992, as Title XXXIV of Public Law 102-575. The CVPIA mandated changes in Central Valley Project (CVP) management, particularly to protect, restore, and enhance fish and wildlife. The CVPIA includes 103 programs and activities and requires close coordination among the implementation teams assigned to the various programs.

<b>Table 1</b> <b>Summary of Level 2 and Level 4 Requirements</b> <b>for San Joaquin Valley Wildlife Refuges (measured in acre-feet)</b>			
<b>Wildlife Refuges</b>	<b>L2</b>	<b>100% Incremental L4</b>	<b>Total L4</b>
Los Banos Wildlife Area	16,670	8,330	25,000
Merced NWR	13,500	2,500	16,000
Grassland Water District	125,000	55,000	180,000
Kern NWR	9,950	15,050	25,000
Pixley NWR	1,280	4,720	6,000
<b>Total</b>	<b>271,001</b>	<b>105,514</b>	<b>376,515</b>

The overall general impacts of implementing the CVPIA, including providing Level 4 water supplies, are addressed in a Final Programmatic Environmental Impact Statement (PEIS) (Interior 1999) and Record of Decision (Interior 2001) for the CVPIA.

Environmental documents have also been prepared to address the conveyance of Level 4 supplies to the refuges and use of Level 4 supplies on the refuges. An Environmental Assessment/Initial Study was prepared for the conveyance of water to the Refuges in the San Joaquin Valley (Interior et al. 1997), and Environmental Assessments were prepared for use of Refuge water supplies in the San Joaquin Basin (USFWS 2001) and the Tulare Lake Basin (CH2M Hill 2000).

Under this proposed water transfer, approximately 8,500 acre-feet of water will be transferred from Stevinson Water District to the East Bear Creek Unit as Level 2 supplies for the refuge. This transfer will allow Reclamation to reallocate the same amount of water for incremental Level 4 supplies to some other refuge(s). This Environmental Assessment/Initial Study was prepared in support of the proposed water transfer by Reclamation and the District to jointly satisfy the requirements of the National Environmental Policy Act (NEPA, the provisions of which are set forth at 42 U.S.C. § 4321 *et seq.*) and the California Environmental Quality Act (CEQA, the provisions of which are set forth at California Public Resources Code § 21000 *et seq.*).

## PROJECT LOCATION

The District is located at the confluence of the San Joaquin and Merced Rivers in Merced County within the San Joaquin Valley (Figure 1). The county is bounded by the Sierra Nevada Mountains to the east and the Pacific coastal range to the west. The project region is characterized by flat valley lowland agriculture, with a climate that is cool and moist in the winter and hot and dry in the summer. Soil types are recent and young alluvial fan and floodplains. They are typically well to excessively drained and are classified by a high groundwater table with slight concentrations of salts and alkali. General topographic characteristics of the area include topographic slopes of 4 percent or less, elevations less than 200 feet above sea level, low to moderate runoff, low erosion potential, high water availability, and fertile topsoil.

The general plan designation for the District is agricultural. Agricultural classifications are used to classify lands with the greatest potential for agricultural development. Zoning

is classified as General Agricultural, A-1. This zoning is designated for intensive farming dependant on soils, water availability, and flat topography. Other land uses in the region include agricultural, commercial, or industrial, depending on the zoning of surrounding areas. A-1 zoning limits individual parcel sizes to a minimum of 20 acres to sustain the sparsely populated, low traffic lands necessary for agricultural productivity.

The East Bear Creek Unit is located east of the San Joaquin Valley, in Merced County. The unit includes Bear Creek and the San Joaquin River and contains natural grasslands, vernal pools, riparian floodplain habitat, irrigated pasture and small-grain production lands.

Placeholder for Figure 1

## PURPOSE AND NEED

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There is a need to purchase water during the 2004, 2005, and 2006 water supply years to meet incremental Level 4 requirements to provide critical wetland habitats for the benefit of migratory waterfowl, other migratory birds, and wetland-dependant wildlife.

Reclamation is required to obtain incremental Level 4 water supplies pursuant to Section 3406(d)(2) of the CVPIA. To meet CVPIA requirements, water supplies are to be acquired from willing sellers.

The purpose of the water purchase is to enhance and maintain wetland habitats for the benefit of migratory waterfowl and wetland-dependant wildlife in the San Joaquin Valley. Incremental Level 4 supplies provide the water needed to optimally manage Central Valley wetland habitat on the refuges, as identified in *Report on Refuge Water Supply Investigations* (Reclamation 1989). The notable differences between obtaining water supplies for optimum management (incremental Level 4) and historic annual deliveries (Level 2) is that incremental Level 4 water supplies allow for the management of habitat diversity. Habitat management includes timing and duration of fall and late winter flooding, summer water for food production, and permanent wetland habitat maintenance.

## PROPOSED ACTION AND ALTERNATIVES

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### PROPOSED ACTION

The proposed action consists of Interior purchasing up to approximately 8,500 ( $\pm 10\%$ ) acre-feet of water from the District to meet Level 4 refuge water needs for water service years 2004, 2005, and 2006. Under this proposal, the approximately 8,500 acre-feet of water will be delivered to the East Bear Creek Unit as Level 2 supplies for the refuge, which will allow Reclamation to reallocate the same amount of water for incremental Level 4 supplies to some other refuge(s). This exchange is permitted under Article 7 of the Long-Term Refuge Water Supply Contracts and would maintain the balance of Level 2 and Level 4 refuge water supplies consistent with the obligations to each refuge under the Long-Term Refuge Water Supply Contracts.

From spring 2004 to February 2007, the District will provide water to Reclamation through the implementation of a district water users groundwater substitution program and through the redirection of surface water supplies that have been historically locally acquired. Of the approximately 8,500 acre-feet total, up to 5,500 acre-feet of surface water historically transferred locally by the District will be redirected to the East Bear Creek Unit. Additionally, 3,000 acre-feet of water will be provided through the groundwater substitution program.

The transferred water will be conveyed through two possible routes. Both routes utilize preexisting facilities, and no conveyance facilities will be constructed for this project. For Route No. 1, water originating from the East Side Canal would be conveyed through the Mariposa Bypass and into the San Joaquin River, from which it ultimately would be diverted into the East Bear Creek Unit. For Route No. 2, water originating from the East Side Canal would be conveyed through Bear Creek and ultimately diverted into the East Bear Creek Unit. Both proposed routes are depicted in Figure 1.

The District's water supply sources include groundwater and pre-1914 rights to the Merced and San Joaquin Rivers and to water of streams intersecting the East Side Canal, such as Bear Creek, Owens Creek, and Duck Creek. The District has historically transferred water to neighboring areas. During the 10-year period from 1993 to 2002, water transfers to Turner Island averaged over 6,300 acre-feet per year and transfers to the Machado property averaged 3,500 acre-feet per year. The District proposes to redirect up to 5,500 acre-feet of the water supply that has historically been locally transferred.

The District's groundwater management program includes a groundwater substitution project, which consists of pumping approximately 3,000 acre-feet of water per year, to manage its groundwater resources more effectively and to reduce the agricultural impacts from the high groundwater table. The District's groundwater management program is independent of the Proposed Action and has been designed to remedy the impact of the

high groundwater table on agricultural activities. However, the program will provide a source of water for the proposed water acquisition.

The groundwater substitution project will consist of transferring to the East Bear Creek Unit up to 3,000 acre feet of surface water that is currently used by local farmers for crop production and substituting their water supply with groundwater pumped within the District. To implement the groundwater substitution program, the District plans to utilize four wells. Three of the wells are wells that have not been extensively used in the past. The fourth well has been drilled and will require installation of the pump. The locations of these four wells are indicated on Figure 1. The groundwater substitution program is designed to lower the high groundwater table and remedy the impacts of a high water table on agricultural practices in the District. It has also been designed to lower salinity levels and to improve soil productivity. The wells will be in operation when an additional water supply is needed to meet the District's agricultural water demands. Groundwater would be used to reduce the District's demand on surface water supplies and increase the amount of water available for acquisition.

Well locations were selected using the California Department of Water Resources (DWR) water transfer guidelines. These guidelines are designed to locate the production wells for a groundwater substitution program such that they will not have any impact on streams and rivers. The groundwater substitution program and production well site selections have been specifically designed to avoid any potential or perceived impacts on streams and rivers. As specified in the DWR guidelines, the wells are located more than two miles from any stream or river, including the Merced and San Joaquin Rivers. The areas surrounding the production wells are agricultural and extensively cultivated and do not include riparian habitats, wetlands, or terrestrial habitats that could be impacted by the operation of the wells. A groundwater monitoring program has been designed to monitor the impacts of groundwater pumping on the groundwater table and other wells in the area. The purpose of the monitoring program is to operate the production wells for the groundwater substitution program such that they would not impact other wells in the area. If the surrounding monitoring wells indicate that the groundwater substitution program is producing a significant impact on other wells in the project area, the production wells will be shut down for a period of time sufficient for the aquifer to recover.

## **NO ACTION ALTERNATIVE**

Under the No Action Alternative, water deliveries to the San Joaquin Valley wildlife refuges would consist of existing firm supplies that satisfy Level 2 requirements and any water acquired from other sources to meet the incremental Level 4 supplies. Management objectives for the San Joaquin wildlife refuges associated with full Level 4 water supplies may not be met for the 2004, 2005, and 2006 water years under the No Action Alternative. Absent this water purchase, water available for acquisition from the District would either be used by the District or transferred to other buyers.



## **AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

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### **AGRICULTURE**

The District is heavily dependant on agricultural lands in the area. According to the Department of Conservation, Farmland Monitoring and Mapping Program, the lands that surround the District include farmland of local importance, prime farmland, and grazing land.

The No Action Alternative would not have a direct impact on agricultural practices and District water would continue to be delivered to District water users or transferred to other buyers consistent with historic actions.

The proposed water acquisition program would not have an adverse effect on agriculture because it does not include the conversion, construction on, or removal of farmland. The Proposed Action would redirect water through current conveyance systems, such as the East Side Canal and Mariposa Bypass, which are equipped for facilitating the water acquisition. The proposed action would help agricultural properties in and around the District through the groundwater substitution program by lowering the groundwater table. The District and surrounding areas generally have a high groundwater table that is detrimental to some desired crops. By implementation of the Proposed Action, the groundwater substitution program would lower the groundwater table as needed to balance the local soil-water system and increase the productivity of some crops.

The acquisition of up to 5,000 acre-feet of surface water that has been historically locally transferred for agricultural uses will not have significant impacts on agricultural activities in the project area. In the past, Turner Island has been the primary beneficiary of such transfers and has other sources of water supplies, including groundwater. Turner Island has received water from the District mainly because of the availability of less expensive sources of water supply. If the future transfers to Turner Island are reduced as a result of the Proposed Action, they will be able to use other sources, including their own groundwater supplies. A review of the groundwater data in the area indicates that groundwater levels are generally stable with no overdraft in the area. In addition, the Proposed Action will contribute to additional groundwater recharge in the area. Therefore, no significant impact on the agriculture is anticipated from the implementation of the Proposed Action.

### **AIR QUALITY**

The No Action Alternative would not adversely affect air quality in the region. Water would continue to be delivered to District water users or transferred to other buyers consistent with historic actions and would not impair air quality.

Under the Proposed Action, the District would continue to implement a groundwater substitution program to extract groundwater for District farmers from groundwater wells

within the District. The groundwater substitution program uses electrical pumps for groundwater extraction and, therefore, would not contribute to air quality degradation within the region.

## **BIOLOGICAL RESOURCES**

Habitat diversity within the San Joaquin Valley is demonstrated through the valley grasslands, wetlands, and vernal pools. In past years, much of the natural lands has been converted to agricultural lands, reducing prime habitat for sensitive species in the region. Locally, the project area is characterized by agricultural lands and manmade canals, which are poor habitat for many sensitive species.

Two databases were reviewed to analyze sensitive species within the project region. The California Department of Fish and Game (DFG), through the California Natural Diversity Database (CNDDB), provides a listing of sensitive species that have been sighted. The U.S. Fish and Wildlife Service (Service) provide a comprehensive database of listed species that have the potential to occur within the region. This species list is based on habitat and the listed species have not necessarily been sighted.

Based on the agricultural land use types within the local project area and the nature of the project, which does not include construction, alteration, or conversion of land, it has been determined that the project is located in poor habitat for many of the sensitive species on the list and would not adversely affect species with potential habitat in the region. A complete list of species with the potential to occur within the region is included in Attachment A.

Several federal and state listed species, dating back to the 1980s, have been sighted during surveys within the region through the CNDDB. Federal and state-listed species that have been observed in the area include San Joaquin kit fox, giant garter snake, Swainson's hawk, delta button-celery, and Colusa grass.

The No Action Alternative will not adversely affect sensitive species or habitat in the region. Water supplied from the Delta would continue to provide species in the wildlife refuge with necessary water. The No Action Alternative would not result in a loss of habitat or take of any sensitive species.

The San Joaquin kit fox, which is a federally endangered and state threatened species, uses seasonal wetlands, alkali desert scrub, grassland, and valley foothill hardwood habitats. Kit foxes are primarily nocturnal and carnivorous. The San Joaquin kit fox population has declined primarily because of habitat loss to agricultural, urban, industrial, and mineral development in the San Joaquin Valley. In 1986, the kit fox was spotted in the vicinity of the San Luis National Wildlife Refuge and the Kesterson Wildlife Refuge, which are located west of the San Joaquin River, approximately four miles from the project area. Overall, sightings of the kit fox are sparse for the region, dating back to 1986 (California Natural Diversity Database 2004). The proposed project is primarily located in agricultural areas, which is poor habitat for the San Joaquin kit fox. The Proposed Action will not convert any prime habitat. The project will only divert water

within local, existing conveyance facilities; therefore, the project will not include construction activities that may potentially harm species (California Natural Diversity Database 2004). The project will not alter the amount of water transferred from the District or used at the East Bear Creek Unit. Therefore, the project will not affect San Joaquin kit fox.

The giant garter snake is a federal and state threatened species, endemic to the freshwater emergent wetlands of the Central Valley. These snakes hunt and seek cover in cattails or brushes along the edges of open, calm water. Exposed banks covered with grass are used for basking in the sun, and uplands dotted with rodent burrows are used for cover and refuge from floodwaters. They do not occur in large rivers because of predatory fish or in riparian woodlands because excessive shade reduces basking habitat. Although surveys have been recently conducted to determine presence or absence, little is known about the habitat requirements of giant garter snakes in the San Joaquin Valley. These habitat requirements are presumably different from those of giant garter snakes in the Sacramento Valley because of environmental differences between the two areas (i.e. soil, vegetation, climate, and water quality). Sightings of the giant garter snake in the region are prior to 1986. The local project area can provide habitat for the giant garter snake within the canals. The project will not affect possible snakes in the canals because the project will not alter current conditions within the canals. At this time, the District directs water to sources outside the District; the redirection of the water to the East Bear Creek Unit will not substantially change the course or amounts of water through the canals. Therefore, the Proposed Action will not affect convert any prime habitat or basking areas for the giant garter snake (California Natural Diversity Database 2004).

The state threatened Swainson's hawks are medium-sized birds with long pointed wings and a square tail. Swainson's hawks forage in native grasslands, pastures, hay crops, such as alfalfa, and certain grain and row crops in central California. They nest in riparian forests, oaks, and trees in agricultural fields. The loss of habitat caused by the conversion of agricultural lands to residential and commercial developments or the conversion to less dense crops, such as vineyards and orchards, which provide fewer foraging opportunities, is a threat to Swainson's hawks throughout California. Swainson's hawks were spotted in the Los Banos Wildlife Refuge in 2003 and nests were seen along Salt Slough in 2001, which is approximately five miles south of the project area. The Proposed Action would not convert any prime habitat. The project will only divert water within local, existing conveyance facilities; therefore, the project will not include construction activities that may potentially harm species (California Natural Diversity Database 2004). The project will not alter the amount of water transferred from the District or used at the East Bear Creek Unit. Therefore, the project will not affect Swainson's hawks.

Delta button-celery is a California state endangered species. A member of the carrot family, it is a slender herb with greenish, rounded flowering heads. It grows on clay soils within sparsely vegetated seasonally flooded floodplains and swales. The delta button-celery has declined because of flood control activities and conversion of lowlands to agriculture. Currently known populations occur on private land, USFWS national

wildlife refuges, and the DFG North Grasslands and Los Banos Wildlife Areas. The Proposed Action will not reduce any habitat for the delta button-celery because it will not alter or change the amounts of water entering a watercourse (California Natural Diversity Database 2004). No ground-based or construction activities would occur that could crush or damage these plants. Therefore, the Proposed Action will not affect the delta button-celery.

Colusa grass, which is a federally threatened and a state endangered species, is a coarse, pale green, sticky member of the grass family. It has several stems of loosely folded, clasping leaves and thick, cylindrical terminal spikes of flowers. This grass occurs only on the muds of large or deep vernal pools in Merced, Stanislaus, Solano, and Yolo Counties. Populations of Colusa grass have been lost because of the conversion of California's Central Valley vernal pool habitat to agriculture and urbanization. Heavy grazing and competition from introduced weedy species are also threats to the species. Colusa grass has been sighted in vernal pools within one mile of the East Side Canal and Bear Creek. The Proposed Action would not have an adverse affect on any vernal pools and therefore would not contribute to the loss of any Colusa grass (California Natural Diversity Database 2004).

Further analysis of sensitive species within the project area is not necessary because the project will not disrupt habitat for any of the species listed. The project will not be located on or interfere with vernal pools in the region. It will not include construction of conveyance facilities that could reduce prime habitat for terrestrial species. The project will be located within man-made conveyance systems that are already in operation. Water amounts supplied through the facilities will not substantially change. The portion of water currently released to farmers and Turner Island will be redirected to the San Joaquin River, where it will replace Delta water that is currently flowing from CVP conveyance facilities. Since the project will not alter a watercourse or include construction on or the conversion of any prime habitat, the project will not adversely affect sensitive species habitat within the area.

The Proposed Action would have a positive effect on waterfowl or wildlife, including special-status species at refuges within the San Joaquin Valley, by providing additional refuge water supplies. The delivery of water supplies to the wildlife refuges will have a secondary beneficial impact to fishery resources and riparian areas as a result of an increase in stream flows.

## **CULTURAL RESOURCES**

The San Joaquin Valley is a rich and diverse area, with a history dating back to early Native American tribes. Until the 1830s, the Yokut Indian tribes inhabited the region. Large settlements of Spanish land grants followed in the mid-1800s, and later the California Gold Rush influenced the region. The west side of the valley became an important reloading stop for pioneers before heading over Pacheco Pass into San Francisco. Through this history, inhabitants left behind cemeteries and artifacts at their settlement sites. The historical structures and landmarks, which span the entire region, are archaeological and historical cultural resources of importance. Areas of known

historical significance are filed with the Office of Historic Preservation, Central California Information Center, California State University, Stanislaus, Turlock, California. Included in those records are bridges, courthouses, and natural archaeological sites, such as Pacheco Pass.

The No Action Alternative supplies the wildlife refuge with water through CVP operating conveyance systems. These systems have been in operation through the CVP for many years and there are not any known resources of cultural or archeological significance harmed by the CVP conveyance systems.

The Proposed Action would not affect any cultural or archeological resources in the San Joaquin Valley because it would employ only current conveyance systems to acquire water. There would be no construction, removal of existing facilities, or disturbance to land as a result of implementation of the proposed program. Historic stream channels have naturally changed course over the past 100 years and would not be substantially altered by the water acquisition. The water acquisition would utilize and operate existing conveyance systems and facilities.

## **HYDROLOGY – GROUNDWATER AND SURFACE WATER**

The No Action Alternative would not adversely affect ground and surface water in the region. Water would continue to be delivered to District water users or transferred to other buyers consistent with historic actions and would not result in any impairment of groundwater or surface water.

Under the Proposed Action, the District would provide incremental Level 4 water supplies to the refuges. The source of water supplies for the proposed water acquisition consists of the implementation of a District water users' groundwater substitution program and redirection of surface water supplies that have been historically locally transferred. Approximately 8,500 acre-feet will be delivered to the East Bear Creek Unit each year as Level 2 supplies through an exchange to provide incremental Level 4 supplies to some other refuge(s).

Of the 8,500 acre-foot total, up to 5,500 acre-feet of surface water historically transferred locally by the District will be redirected to the East Bear Creek Unit. Additionally, 3,000 acre-feet of water will be provided through the groundwater substitution program. The groundwater substitution program consists of transferring surface water to the East Bear Creek Unit that is presently used within the District for crop irrigation and substituting the supply with the pumping of up to 3,000 acre-feet of groundwater by farmers to irrigate crops.

The proposed water acquisition project would provide habitat for waterfowl and other wildlife within the refuge. The wildlife refuge uses the water to provide a flooded habitat and for irrigation of crops suitable for the wildlife. This practice contributes to groundwater recharge by providing deep percolation into the aquifer systems. The project would contribute to additional recharge in the area and, to some degree, offset groundwater depletion in other parts of the basin. The water acquisition would not

transport water out of the basin and, therefore, would not substantially contribute to any adverse changes to the regional groundwater system or surface water system.

Turner Island has been the primary beneficiary of the historically locally transferred water supplies. Turner Island has received water from the District for agricultural uses, generally because of the availability of the inexpensive sources of water. If future transfers to Turner Island are reduced as a result of the Proposed Action, they will utilize other water sources, including their own groundwater supplies. Analysis of groundwater data in the area indicates that groundwater levels are stable and with no sign of overdraft conditions. The Proposed Action will contribute to deep percolation groundwater recharge from conveyance losses associated with the transferred water and with application of water in the wildlife refuge. Farmers may also use water conservation, crop shifts, or other measures to reduce water needs.

The groundwater substitution program would utilize three existing wells and a well that is already constructed and requires installation of pump. The DWR criterion is designed to eliminate impacts of groundwater withdrawal on nearby streams and rivers. To abide by the criterion, all of the selected well sites are at least two miles from any surrounding streams, including the San Joaquin and Merced Rivers. Surrounding wells would be continuously monitored to ensure that the groundwater substitution program is not negatively affecting any other wells in the area. Pumping would be stopped as adverse changes to surrounding wells occur, until the aquifer has recovered.

The water transfer program could promote water conservation and more effective conjunctive management of surface and groundwater resources, resulting in additional water supplies for the region.

## **SEISMIC ACTIVITY**

Seismic activity has historically occurred within the project region. The San Andreas Fault Zone is located approximately 15 miles west of the proposed project area, along with the Hayward, Calaveras, White Wolf, Garlock, Sierra Nevada, and Bear Mountain faults. These active faults are principal sources of seismic activity for the region. The Ortigalita fault, the closest fault to the project area, has not been active in historic times, but has the potential to become active again.

Seismic activity will not affect either the No Action Alternative or the Proposed Action because neither involves the construction of any new facilities.

## **INDIAN TRUST ASSETS**

Indian Trust Assets are legal interests in property or rights held in trust by the United States for Indian Tribes or individuals. Trust status originates from the rights imparted by treaties, statutes, or executive orders. These rights are reserved for or granted to tribes. A defining characteristic of an Indian Trust Asset is that such assets cannot be sold, leased, or otherwise alienated without federal approval.



Indian reservations, rancherias, and allotments are common Indian Trust Assets. Allotments both within and outside of reservation boundaries are parcels of land where title is held in trust for specific individuals. Additionally, Indian Trust Assets include the right to access certain traditional use areas and perform certain traditional activities.

It is Reclamation policy to protect Indian Trust Assets from adverse impacts of its programs and activities whenever possible. Types of actions that could affect Indian Trust Assets include an interference with the exercise of a reserved water right, degradation of water quality where there is a water right, impacts on fish and wildlife where there is a hunting or fishing right, or noise near a land asset where it adversely affects uses of the reserved land.

No Indian Trust Assets occur within the District or the San Joaquin Valley refuges. Due to the absence of Indian Trust Assets within the action area, no impacts would occur as the result of the No Action Alternative or the Proposed Action.

### **ENVIRONMENTAL JUSTICE**

Executive Order 12898 requires each federal agency to achieve environmental justice as part of its mission, by identifying and addressing disproportionately high adverse human health or environmental effects, including social and economic effects, of its programs and activities on minority populations and low-income populations of the United States.

No changes in agricultural communities or practices would result from this acquisition. Accordingly, the Proposed Action would not have any significant or disproportionate negative impact on low-income or minority individuals within the District.

## CONSULTATION AND COORDINATION

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Pursuant to 40 CFR 1508.9 (b), the following agencies and persons were consulted in preparing this document:

- U.S. Department of Interior – Bureau of Reclamation, Mid Pacific Region
- U.S. Fish and Wildlife Service
- Stevinson Water District
- Bookman-Edmonston

Pursuant to 40 CFR 1506.6 and the provisions of Reclamation's Departmental Manual found at 516 DM 3.3, the following actions were taken prior to the completion of this document:

- Field Review – Mr. Bob Kelley of Stevinson Water District conducted a field visit in December 2003. Mr. Kelley surveyed the conveyance facilities in the District to assess the feasibility of transferring water through the conveyance system.
- Coordination Activities:
  - Department of Water Resources – Water Transfers Office, Oct.-Dec. 2003.
  - Department of Water Resources – Environmental Water Account, Oct.-Dec. 2003.
  - U.S. Bureau of Reclamation – Water Acquisition Program, 2003-2004.

The Draft EA/IS was circulated to interested parties for a 30-day public review period from March 12 through April 12. Comments were received from Merced Irrigation District and the Four S Land and Cattle Company. Those letters, as well as a list of all individuals and agencies receiving the Draft EA/IS is provided in Attachment C. These comments and Agency review resulted in one clarification in the document: The use of the Mariposa Bypass is only one of two options for conveying water to the East Bear Creek Wildlife Refuge and would only be used upon agreement with the Four S Land and Cattle Company.



## LIST OF PREPARERS

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Attachment A  
Sensitive Species with the Potential to Occur  
Within the Arena, Gustine, San Luis Ranch, Stevinson,  
and Turner Ranch 7.5-Minute Quad Maps.

valley elderberry longhorn beetle  
delta smelt  
Central Valley steelhead  
Central Valley spring-run chinook salmon  
Colusa grass  
Hoover's spurge  
California red-legged frog  
blunt-nosed leopard lizard  
San Joaquin kit fox  
bald eagle  
Fresno kangaroo rat  
giant garter snake  
riparian (San Joaquin Valley) woodrat  
riparian brush rabbit  
conservancy fairy shrimp  
longhorn fairy shrimp  
vernal pool fairy shrimp

Attachment B  
Initial Study Checklist

Attachment C  
Comments Received During Review Period